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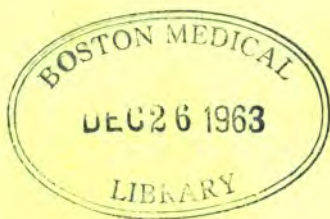
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OF
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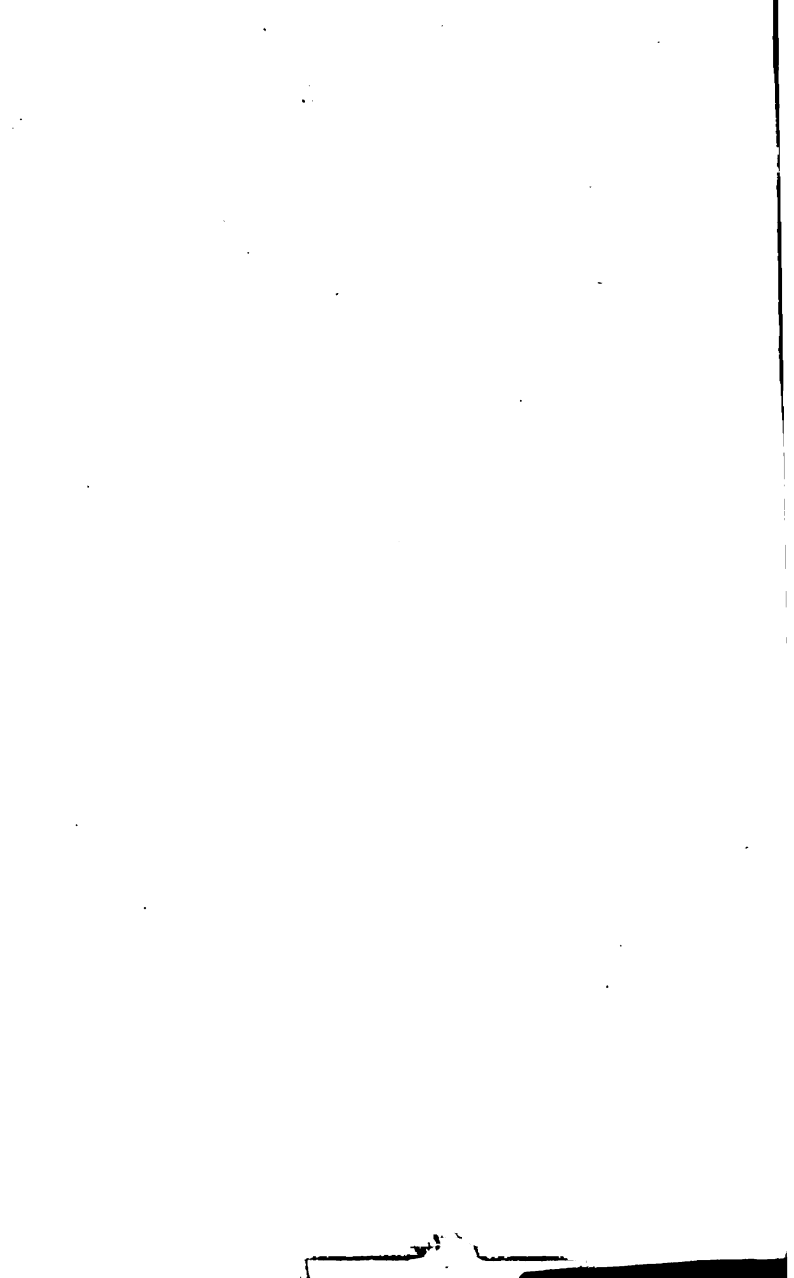
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Oct 30th. 1878

The gift to
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AN HISTORICAL REVIEW

OF THE

NATURE AND RESULTS

OF

VACCINATION,

AS UNFOLDED IN DR. BARON'S LIFE OF JENNER.

BY VIGORNIENSIS.

“ Hic tibi——

Expediat morbi causam eventusque secundet.”—VIRGIL.

“ If a man ventures but out of the old road, and attempts to enlarge the borders of philosophy by the introduction of some new method, or the discovery of some unheard of invention, or some *new phenomena in nature*, what a tragical outcry is presently raised against him! all the world pecking at him, and about his ears.”—SOUTH.

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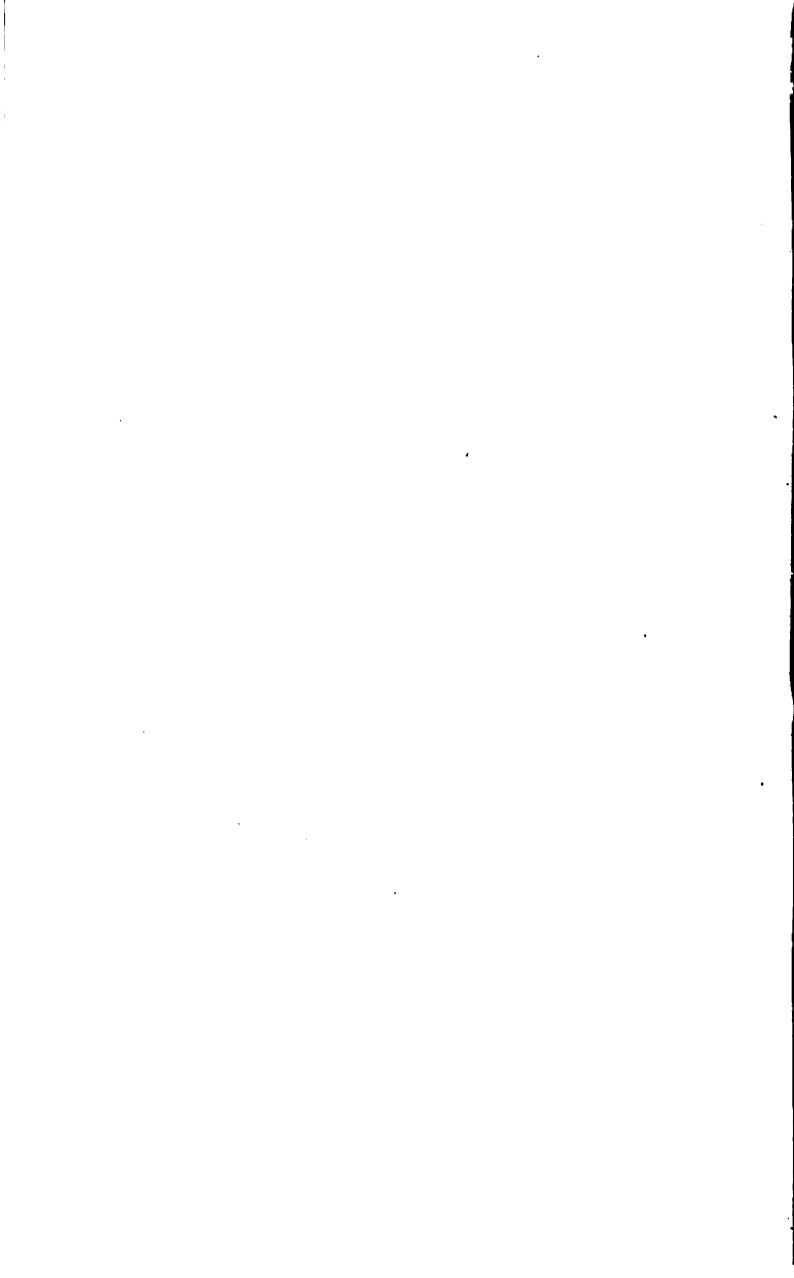
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1838.

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ST. JOHN'S SQUARE.

TO
THOMAS JEFFREYS, M.D. &c. &c.
THE FOLLOWING PAGES
ARE INSCRIBED WITH PECULIAR PROPRIETY,
NOT ONLY BECAUSE HIS KNOWLEDGE IS
INDISPUTABLE UPON THE SUBJECT HERE DISCUSSED,
BUT BECAUSE
IN HIS HONOURABLE STATION AS PRESIDENT
ELECT, FOR THE PRESENT YEAR, OF THE
PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION,
HE IS ESPECIALLY CALLED UPON
TO PUT FORTH THE POWERS OF A VIGOROUS MIND
ON A QUESTION BECOMING
EVERY DAY MORE AND MORE PROMINENT,
AND MORE INTERESTING TO OUR FELLOW CREATURES



ADVERTISEMENT.

It has been for some time obvious to the reflecting portion of the community, that, to give farther efficacy to the invaluable discovery of Vaccination, and to shield the patient from the farther spread of the infection of smallpox, some measure, as just in principle as sound in policy, but of a directly restrictive nature, should be devised by the legislature and the government. Under this conviction, the following article was penned for insertion in a Review. The peculiar nature, however, of its subject matter, falling as it does completely within the province of physical science, caused it to be deemed inapplicable for the

periodical in question. Hence it probably would not have been given to the public in any form, were it not that some persons of weight and consideration in this country, had very strongly expressed their opinion that, in consequence of the recent and highly important document addressed to the Home Secretary by the London Vaccine Board, it now becomes a matter of duty with those who, having paid an anxious attention to this most important of topics, hold firm faith in the protecting power of Vaccination, to lend a helping hand to the diffusion of truth. Especially, as it may be fairly assumed, that a subject like this, the more fully it is discussed, the more clearly will it be set in a true light, and the more will its progress be toward an unequivocal, satisfactory, and final settlement. For this reason therefore, and this only reason, the following article is printed almost *verbatim* as it was originally composed; not without hope that, as nothing is advanced therein which does not result from real facts,

and which cannot have a practical application, it may contribute to bring those who have hitherto manifested a fluctuating indecision of mind, and thus have capitulated with popular error, to distinct and positive conclusions upon the unspeakable benefits of vaccination to this and succeeding generations.

HISTORICAL REVIEW,

&c.

THERE are some works which, like certain flowers, diffuse around them such breathing sweets and unfailing fragrance, that it would argue an insensibility to the best enjoyments of which our nature is capable, not to crown them with a peculiar encomium. Of this character are the volumes that we have here the gratification of reviewing—the only complete and authentic account of the life of Edward Jenner—a name which will be gratefully pronounced through all ages by millions, so long as personal health and safety be prized and pursued among the first of earthly blessings.

“ His body is buried in peace, but his name liveth for evermore.”

It was the opinion of the late Sir James Mackintosh, (and we have recently seen it confirmed in a letter of his), that it would be more advantageous to the work in question, to postpone a criticism upon it, till the whole shall be completed. Influenced by a similar conviction, we had delayed our remarks to the present period, though, truth to say, we have at times been much inclined to depart from this determination, lest the excellent author of this piece of biography, should have been induced to adopt for his own practice the rule of the ever memorable John Hales, “ to pen nothing till he needs must,” but to exceed this recorded declaration, by withholding his second volume from the press when finished. Happily, however, our fears on this head have been agreeably disappointed, and we now rise from the perusal of both volumes with the impression, that a biography, more pregnant with instruction to those who confidently believe the many great and inte-

resting objects that may be effected by the co-operation of genius and perseverance—by the union of patient observation and cautious inference—cannot be well conceived, than that of Jenner.

Singularly fortunate, indeed, has this illustrious man been in finding a biographer in the person of one of his own profession, who, from so long enjoying his confidence and friendship, and having access to documents of a public and private nature unknown to the rest of his intimate associates, is enabled to make this very valuable offering to the public, and to prove to us beyond all shadow of doubt, what we have often heard asserted by some of his medical contemporaries, that if Jenner had not been the author of the life-saving discovery, VACCINATION, yet he would have been entitled to general respect and admiration, from endowments and accomplishments which adorn and elevate the mind. The philosopher and the philanthropist, the statesman and the student of nature, the scholar and the divine, will therefore peruse

the narrative with the same deep interest as the medical practitioner. We are also firmly persuaded that, with such discrimination and learning has Dr. Baron executed his task—with such superiority over passion and prejudice—with such luminous perspicuity of statement and in language so striking and appropriate,—that these volumes will greatly add to his reputation in the literary world. It is but common justice to him to say, that in them he has attained the highest end of biography, which is to inspire us with a reverential gratitude to those whose fame is deservedly spread over the world.

That late eminent physician and truly good man, Dr. Maton, thus briefly but impressively eulogized the first volume. “It is admirable as a biographical composition and a medical history.” With a peculiar emphasis we would say, that this decision is critically right; and in alluding to this distinguished professor of the therapeutic art (for in him was united much of the learning of Haller with the experience of Sydenham), it may be proper to

remark, that at least the medical portion of the community should hold itself greatly indebted to Dr. Maton for having introduced Jenner to his biographer, a circumstance which has proved so propitious to science and literature.

Dr. Baron's professional merits have been long known at home, and on the continent ¹. Nearly twenty years have elapsed since his publication on tuberculous diseases, which has assigned him a place among the first authors of medical eminence. It may perhaps be considered somewhat presumptuous in us to offer an opinion upon a treatise expressly addressed to his professional brethren. But even at the risk of exposing ourselves to this imputation, we deem it fitting to say, that the observations of Dr. Baron on tuberculous and other morbid

¹ The exact and full title of this work is, "An Enquiry illustrating the nature of the Tuberculated Accretions of Serous Membranes, and the origin of Tubercles and Tumours in different textures of the body." Humboldt found a female translator of his travels in the person of the accomplished Helen Maria Williams; but certainly we cannot say that Dr. Baron has met with an equally faithful one in Madame Boivin, as her translation is full of inaccuracies.

growths evince that conclusions of great consequence in the science of pathology must eventually result from such original thinking, from careful examination of the facts from which he takes his important *data*, and from such minute attention to experimental processes ; for, in this true disciple of the Baconian school, there is a jealous exclusion of hypotheses which cannot abide the test, and of all fanciful theories, however attractive they may be by their speciousness. While in no part of this work is the author's powerful understanding more clearly shown, than in treating of the characteristics and distinguishing marks of chronic and scrofulous disorders, in which he has happily availed himself of the analogies presented in the vegetable kingdom, and even in the economy of the lower animals, to illustrate these maladies.

It was in 1819 that Dr. Baron enriched medical science with that treatise, and it was followed, in 1827, by the publication of the first volume of his *Life of Jenner* ; of which, before we proceed to an examination of the second,

it is indispensably requisite that we should present our readers with an accurate analysis, were it only to show the new lights thrown on the history of the *Variolæ Vaccinæ* by the reasonings of Dr. Baron, conducted (as all his are) under the direction of sound judgment and good sense.

We must, however, pause for a few moments (and it is a pause of unfeigned admiration) to mark Jenner's persevering onwardness of purpose—that fixedness of determination to remove all obstacles though they were as mountains—whilst ignorance, prejudice, bigotry, and a phalanx of interested individuals were manifesting their assiduous and violent hostility to his brilliant discovery; whilst he was day after day, year after year, railed at in pamphlets, whose authors were not ashamed on these occasions to assimilate themselves to those vexatious buzzing little insects, that pass each hour of their ephemeral existence in harassing and tormenting all within their reach. This incessant and formidable opposition he had to encounter, even

after his labours had undergone most thorough and sifting examination—had attained that stage of perfection—had exhibited that ubiquitarian efficiency, as to be solemnly sanctioned by the legislature of this country. Such in short was the malignity of Jenner's assailants, such their intellectual perversions, so entirely was their contumacy of temper assisted here by the delusions of the head, that their feelings alone would render them inaccessible to the force of fair argument, and link them still closer in the bonds of love to their first infatuation.

— “ Haudquaquam dictis violentia Turni
Flectitur ; exsuperat magis, *ægrescitque medendo.*”

If we are to be considered amenable, as no doubt we are, for the evils which it is in our power to prevent, and for the terrible effects which they may produce ; what a huge mass, what an infinite aggravation of bodily pain and suffering, the Woodvilles, the Pearsons, the Moseleys, the Rowleys, and their herd of followers, would have had to account for, had

their united suffrages prevailed to stifle and suppress in the embryo the only effectual antidote furnished against a disease, as loathsome as it was mortiferous; which not only marred the face of manly and female beauty, but, in the confluent variety, has often so completely covered the features with pustules, as to transform them into an object of disgust to the senses. Nor is this the only afflicting result of smallpox. The greatest perhaps of all human calamities, inasmuch as it is the most hopeless and irremediable, total loss of sight, is another consequence of that worst of scourges. If of such miseries, smallpox was the author, thus rapidly advancing in the work of desolation, thus consigning to the grave countless multitudes of all nations, ranks, and ages; what an ever thankful impression should it make on our minds, that, though misrepresentation and calumny were unceasingly employed against Jenner, he should feel that the bright, fixed, wonderful truth of which he was master, could not be extinguished by any human agency. After he had entered

into the investigation of the laws of the *Varicollæ Vaccinæ*, it seems to have been his settled conviction that he was born to benefit countless ages by his discovery, that he was destined by Providence to become a benefactor of his species, in the highest and most expanding sense of the term. This strong, this ardent, this holy feeling, burning like the vestal fire, pure and eternal, never suffered him to waver for an instant, to swerve an inch, while the whirlwind and the tempest of opposition were swelling around him. Truly it is a saddening thing to behold the impediments thrown in his way one after another, and of a magnitude sufficient to bow and break the spirit of any man, not actuated by that prophetic sagacity, which anticipated future triumphs amid every present obstruction against the pure flow of truth, so that nothing could, and nothing would ever be the result of his scientific experiments, but complete success. Painful and conflicting therefore as his feelings were, at this unlooked for treatment, there was not one of them allied to des-

pair. Amid even the waverings, misgivings, and flagging zeal of some of his friends, still was he sanguine of meeting his reward; and with complete self-possession, he awaited in patience the fulfilment of his well grounded expectations.

His biographer, indeed, seems to have almost as profoundly believed as himself, that he was destined by Providence to strike out one of the most dreadful plagues from the list of human misfortunes; that the finger of God was distinctly visible in the result of this discovery: for, in alluding to Jenner's resolution to fix his residence in his native place, (how far famed will the little village of Berkeley in Gloucestershire one day become!) he observes, in that spirit of deep humiliation which all men of real piety must know and feel best befit them, whenever their language bears reference more or less direct to the inscrutable designs of God; "Possibly in this decision we may now be permitted to trace the agency of a higher power, which induced a young man frequently to reject the most flattering prospects of wealth and distinction, that he might

be enabled to follow up the leading object of his mind in the seclusion of a country village." But hear the *ipsissima verba* of this medical and christian philosopher, this practical philanthropist! hear Jenner pouring forth his inmost feelings and convictions in his solitary walks and musings, and in words as beautiful as they are touching, from the tender love which they breathe to mankind! and then we shall perceive at once how the most dazzling objects of common ambition dwindled into insignificance, in comparison with the thrilling, the soul-kindling hope of bequeathing to a grateful posterity a discovery, upon which the rapidly advancing light of science would each day cast fresh splendour. "While," exclaims he, "the vaccine discovery was progressive, the joy I felt at the prospect of being the instrument destined to cast away from the world one of its greatest calamities, blended with the fond hope of enjoying independence and domestic peace and happiness, was often so excessive, that, in pursuing my favourite subject among the meadows, I have sometimes found

myself in a kind of reverie. It is pleasant to me to recollect, that these reflections always ended in devout acknowledgement to that Being, from whom this and all other mercies flow."

From these preliminary observations, let us now, as we proposed, present a careful summary of what constitutes the most important part of the first volume of the Biography.

X | It was, from the outset, the opinion of Jenner, and his invariable assertion, that the vaccine and variolous eruptions were but two forms of one and the same disease. This he made the elementary principle of his investigation : his grand purpose was to evolve and substantiate this truth, the alpha and the omega of vaccination. He maintained with zeal and earnestness, through many a page of elaborate disquisition, and even against the doubts and surmises of his own friends, the prophetic anticipation, that such eventually would be the result ; and that this was the source of the security which the cowpox afforded ; and here it may be said he has delivered himself with an almost oracular certainty of effect,

He supposed that the virus of smallpox, in passing through the systems of the lower animals, became disarmed of its pestilential characters, and put on a mild and gentle aspect. This, we reiterate it, was Jenner's prophetic anticipation. It has been the great object of his biographer fully to illustrate and verify the same. To do this, Dr. Baron has instituted a most laborious and learned inquiry, and one of the highest consequence to science and humanity.

Having, in the earlier portion of the book, traced out, amid a lengthened detail of Dr. Jenner's professional and private life, the progress of his observations respecting the cowpox, Dr. Baron, with a view to corroborate his opinions, opens in the fifth chapter an inquiry which the first philosophers in Europe must deem worthy of a very critical attention. His professed object is to find out, whether ancient records and traditions discover any affinity between that disorder and the smallpox, as it affects the human subject; justly observing that, " independent of the historic

information which such an inquiry must elicit, it claims our notice from its intimate connection with those questions which have most agitated the public mind respecting the origin of the cowpox itself, as well as of its prophylactic virtues."

The whole of this investigation may safely be pronounced a model of inductive historical inquiry. It undertakes to elucidate an obscure part of the most interesting of all pathological subjects. The result of this laborious investigation is a very gratifying one,—fully establishing the accuracy of Jenner's observations, and bringing forward a great weight of unprejudiced and impartial testimony to support his doctrines.

He sets out upon the discussion with this remark. Many writers affirm, "the epidemic diseases, which affect the human race, to be peculiar to our species, and to have no influence on the inferior animals; and they have been not less decided in the opinion, that the diseases of other animals are not communicable to man. The disclosures, which have

been made by the history of the *Variolæ Vaccinæ*, have shown that both these opinions are erroneous." He then reduces the inquiry into two distinct propositions, on the basis of each of which he justly considers may be reared this most important axiom—That the *Variolæ* of men and of the lower animals, are *essentially* and *originally* the same; and that, from its first appearance to the present hour, the disease in question existed among them under various modifications. Dr. Baron's first proposition is, that an eruptive disease, common both to man and to the inferior animals, has been known in different ages, and in different countries; and that the descriptions given of this eruptive disease, by various writers, accord so completely with those acknowledged to be characteristic of smallpox, as to render it highly probable that this disease actually existed at a much earlier period than that usually assigned to its origin.

The second proposition is, that, "as there are numberless writers who have described the smallpox in man, so there are others of

established name and reputation, who have treated of a similar eruptive and pestilential disease as existing, in various countries and in different times, among the lower creatures, but especially among cattle; that to this disease they have unhesitatingly applied the name *Variolæ*; and actually recommended such treatment as experience had proved to be useful when that disease attacks man." No disease, presenting the peculiar appearance of the variolous eruption, is known to exist at present, as a contagious pestilence in any part of the world, except smallpox. The true bubonic plague of Egypt and the Levant is so totally distinct from it, in its symptoms and outward appearance, that the most cursory observer could not possibly at any time have confounded the two. Now it is a very remarkable fact, that all the most ancient plagues on record, of whose symptoms we have any precise account, appear to have been of the *varioloid* kind. Before, however, proceeding farther in this discussion, it is proper for us to state, that though to the word '*plague*' is

annexed (in common and popular discourse) an idea which includes some great and indescribable calamity ; yet those, who are familiar with the technical niceties of the medical language, employ that expression to denote *fevers* only, accompanied with boils and carbuncles.

Philo, an Alexandrian Jew of the first century, wrote a book on the Life of Moses ; and, in that part of Exodus which describes the plagues inflicted on the Egyptians, he has introduced a paraphrase on the words of the inspired historian. Now his commentary on the plague of “boils and blains” contains, as Dr. Willan in his Dissertation on the Antiquity of Smallpox judiciously affirms, a lively and accurate description of that disease. The eruptions are exhibited by Philo in a light as clear and strong as language can supply, not as being simply confined to the glands like those of the true oriental plague, but as covering the whole body of those affected by it. His words are *κατὰ τῆς δορᾶς ἀπάσης*, spread over the whole skin. The eruptions

moreover are purulent pustules (ὑποπύοι φλύκταιναι) assuming most generally a *confluent character*. (Τῶν κατάμελος καὶ μέρος διεσπαρμένων εἰς μίαν καὶ τὴν αὐτὴν ιδέαν ἀποκριθέντων.) It is therefore evident, that if Philo's account, which is descriptive of the smallpox, be a true representation of the Egyptian plague, it carries back the antiquity of that disease to a period nearly 1500 years before the Christian era ; and it is highly deserving of notice, that the histories and traditions of the Eastern nations, particularly the Chinese and Hindoos, refer the commencement of this disease to a corresponding epoch.

The well known passage in the first book of the Iliad, in relation to the pestilence sent on the Grecian camp by Apollo, is next quoted to prove the antiquity of the belief, that men may participate in the distempers of the brute creation. This is corroborated by the testimonies of the Latin historians. Livy, in particular, enumerates no less than ten pesti-

lences, occurring in Rome between the years A.C. 464. and A.C. 178, which attacked *men and cattle indiscriminately*. Of the first of these, a more circumstantial account is furnished by Dionysius of Halicarnassus. The following passage of this author is very striking, and is so especially calculated to confirm the general correctness and fidelity of Dr. Baron's researches, that we shall give it at full length.

“ The following year, Lucius Fabius and Pub. Servius Priscus having commenced their government, the Romans did not engage in any work of a warlike or political nature worth mentioning, as they were grievously affected with pestilential disease, more severe than ever attacked them before; it first assailed the horses at pasture, and the herds of cattle; after these it raged among the flocks of goats and sheep; and destroyed nearly all the quadrupeds; then it seized on the shepherds and agricultural labourers; and, passing through the entire region, fell upon the city. Indeed, so great was the multitude of attendants and

slaves and poor population destroyed, that it was not an easy matter to ascertain the number.

“At first the dying were carried away in heaps on waggons, and those who expired, of whom no account at all was taken, were thrown into the stream of the river running by. Of the senate, a fourth part was estimated to have perished; amongst whom were the two chiefs, and many of the leading men of the state. This disease began about the kalends of September, and lasted through the whole year.” (Vol. i. pp. 172, 173.)

The earliest authentic account of any eruptive disease subsequent to that mentioned in Exodus, and commented on by Philo, is the one given by Thucydides in his history of the Peloponnesian war. His statement of the disorder is precise and accurate. He is particular in his description of the eruptions, and they are well defined. Redness and inflammation of the eyes, a violently deranged state of the fauces and chest, a skin somewhat red, effloresced with small pustules

and blotches, are enumerated ; all symptoms of a varioloid disease, and not those which characterize bubonic plague. Contemporaneous with the pestilential epidemic of Thucydides, we learn from Herodotus, and from Hippocrates the father of physic, that a similar malady prevailed in the hosts of Artaxerxes. Thus far the early classical authorities afford demonstration of the existence of an eruptive pestilential disease, bearing a strong resemblance to smallpox in many respects. The opinions of the Eastern nations are decisive with regard to the high antiquity of this complaint. It would appear to have been known in China from time immemorial ; or at least as far back as the dynasty Tchéone, about 1122 years before Christ. It is part of the Hindu belief, at least of the Vedanti school, which (as the Brahmins affirm) was nearly coeval with the era of Moses, that offerings and worship were given to a female divinity whose tutelar care was exercised over smallpox.

Dr. Baron next endeavours to trace a con-

nection between the eruptive diseases noticed by these ancient authorities, and those which are known from history to have extended their ravages over the world, subsequently to the Christian era. During the reigns of more than twenty Roman emperors, many descriptions are given, and different symptoms enumerated by historians; though of accounts strictly medical, we have few or none. Nearly all the symptoms which are specified, seem to identify them with smallpox. Severe inflammation of the eyes, attended often with loss of sight,—a *pustular eruption*, with the appearance of buboes or parotids, certainly distinguish the disease from the *pestis inguinaria*, or true plague.

In this portion of the inquiry, the various details of which, and the historical passages from which they are derived, our limits will not permit us to particularize, Dr. Baron evinces his usual masterly acquaintance with his subject. The authorities are for the most part Christian writers of competent weight, Cyprian, and Eusebius, and Baronius, who

appeals to St. Ambrose, Paulus Nolanus, and Agathias for testimonies.

The era usually assigned to the first appearance of smallpox, is A.D. 568 or 569, when the city of Mecca in Arabia was besieged by an army of Abyssinian Christians ; and the sudden retreat of these troops is attributed to the dreadful havoc made among them by smallpox, of which the ravages far exceeded those of the enemy. But after the evidence, adduced by Dr. Baron, of the existence of a pestilential disorder from times of very remote antiquity, identical in so many important features with that complaint, it must (we think) be conceded on all hands as most probable that the pestilence, which afflicted the subjects of the emperor Justinian, in the fifteenth year of his reign, was the one which assailed the Abyssinians at Mecca, and that this disease, as well as the majority of those which are recorded in still earlier times, was the *variolous disease*.

Having now brought down the history of eruptive pestilential diseases, as they visited

man and the lower animals, to that period in which smallpox is universally admitted to have been recognized, Dr. Baron proceeds to show, by the direct testimony of those who have written expressly on the diseases of cattle, that an *epidemic smallpox*, described under that specific name, has often been known to prevail among them. Lancisi, in his treatise *De bovilla peste*, asserts that the disease among the horned cattle which was epidemic in the Papal territory in 1713—14, was similar to that which had occurred in Italy nearly two centuries before (A.D. 1514) recorded by the celebrated Fracastorius. After demonstrating at some length the identity of the two maladies, he concludes his observations with these remarkable words: “adeo ut quibusdam in mentem venerit cogitare, boves non lue, ut nunc res est, sed *ipsis pustulis*, quas *variolas* vocant, interire.” The peculiarity of the symptoms induced some persons to consider that the cattle perished not from the common murrain, but from that selfsame pustular malady which is called *variola*, *i. e.*

smallpox. Descending nigher to our own times, we are presented with instructive accounts of various epizootic diseases. Thus, among others, Dr. Layard has, in the *Philosophical Transactions* for the year 1780, furnished us with an excellent description of an eruptive disease attended with fever, which affected black cattle in England; the progress and symptoms of which he watched with sedulous care, and has given with great discrimination. "The disease," he says, "among horned cattle, is an eruptive fever of the variolous kind: it bears all the characteristic symptoms, crisis, and events of the smallpox; and whether received by contagion, or by inoculation, has the same appearances, stages, and determination, except more favourable by inoculation, and with this distinctive and decisive property, that a beast having once had the sickness, naturally or artificially, never has it a second time.

"According to the several prejudices of different countries, various opinions have arisen of the nature of this sickness. Such as are

averse to inoculation have obstinately refused to acknowledge that it was similar to the smallpox in the human body, and have very idly asserted, that the only intention of declaring this contagion to be a species of smallpox, was purposely, and with no other view, to promote inoculation for the smallpox. Others have as positively declared it to be a pestilential putrid fever, owing to a corrupted atmosphere, and arising from infected pastures. But, unfortunately for the supporters of this opinion, while the contagious distemper raged with the utmost violence on the coast of Friseland, North and South Holland, Zealand and Flanders, there was not the least appearance of it in the English coast, from the North Foreland to the Humber, although the coast and climate are the same." Vol. i. pp. 214, 215.

From the whole of the preceding investigation it has been shown satisfactorily; first, that many of the inferior animals, but especially cows, have from time immemorial been affected with smallpox. Secondly, that

this disease has occasionally spread from herd to herd in the most fatal and pestilential manner. Thirdly, that it raged in England and many other parts of Europe about sixty years ago, and was pointedly and emphatically described as a variolous disease, and inoculation was practised to subdue its virulence. All this has not only been shown, but it has been proved almost to a geometrical demonstration, that the disease in the inferior animals began at the same time and has pursued its victims in the different regions of the world, much in the same manner as it has devastated the human species.

The connection of all this with the discovery of Jenner is striking in a very remarkable degree. He finds the remnant of a more violent epizootic smallpox in his neighbourhood. He investigates its nature with signal success, pronounces it to be a mild variety of smallpox, communicates it by inoculation to man, and affirms that the disease thus communicated protects as completely as the more violent disease derived from man.

The ground of this confidence was, his conviction of the identity of the disease, as it appeared in man and in the inferior animals. Every observable analogy, and the ascertained laws of the different affections led him to this conclusion. The historical evidence published by his biographer, as we before stated, beautifully and triumphantly establishes this reasoning. There are noticeable facts at this moment which confirm it in a most impressive manner. Some years ago, (as Dr. Baron anticipated,) the smallpox was discovered among the cattle in a province in Bengal. Inoculations from this source produced at first the mild benignant *variolaë Vaccinæ* as described by Jenner. In allusion to this subject, Dr. Baron says, in the (appendix to vol. iv. page 455,) “ I have received more recent intelligence from the same quarter, which proves that more extensive inoculations from the diseased cows have produced not the mild vaccine vesicle, but an eruptive disease of the true variolous character¹. ”

¹ See the Quarterly Journal of the Calcutta Medical and Physical Society, April, 1837.

When the black cattle in England were affected in 1780 with a destructive variolous complaint, there can be no doubt that inoculation from that disease would have produced similar results. Dr. Jenner, at a later period, found the *variola* among the cows of a more mild and less malignant nature. He employed this mild virus, and with what success all the world knows.

Dr. Baron subsequently remarks: "I take this opportunity of expressing my regret that I have employed 'the grease' in alluding to the disease in the horse. *Variola equina* is the proper designation. It has no necessary connection with 'the grease,' though the disorders frequently co-exist. This circumstance at first misled Jenner, and it has caused much misapprehension and confusion." It is quite evident then from facts, that the horse is one of the animals liable to small-pox, and that virus from this source will protect us as much as that derived from the cow. Attempts to demonstrate that the *variola* of man could be imparted to brutes have failed

in the hands of some ; but it remains to be observed, that M. Viborg, Professor of the Veterinary College at Copenhagen, has been eminently successful in his experiments.

It ought also to be observed that a very striking illustration of this truth has been given by Dr. Baron in his first volume (p. 441), in a letter from Dr. Waterhouse of Cambridge, Massachusetts, dated April 24th, 1801. "At one of our periodical inoculations, which occurs in New England once in eight or nine years, several persons drove their cows to an hospital near a populous village, in order that their families might have the daily benefit of their milk. These cows were milked by persons in all stages of the smallpox : the consequence was, the cows had an eruptive disorder on their teats and udders, so like the smallpox pustule, that every one in the hospital, as well as the physician who told me, declared the cows had the smallpox." This fact completes the demonstration. We have first a disease of a variolous character communicated from the inferior animals to

man, and next, the same disease imparted from man to the inferior animals.—Evidence cannot go further, and it at once exemplifies and vindicates the opinions of Jenner.

The history of smallpox, after its recognition by the Arabian medical writers, as a distinct and peculiar disease, is for many ages vague and unsatisfactory. It was still very frequently confounded with other varioloid affections, especially with chicken-pox and measles. Dr. Baron has given in his sixth chapter, a succinct but very able summary of the various medical writers who have treated of this subject, from the first recorded case of *variola* under that peculiar name, which is that of Elfrida, daughter of the great Alfred, down to the period when the disease underwent a most salutary modification by the introduction of the practice of inoculation. In this part of his arduous labours, he acknowledges his large obligations to Mr. Moore's History of Smallpox, and to Dr. Valentin of Nancy in his treatise upon this disease. We cannot do more than advert in

terms of high praise to this synopsis of facts and authorities.

With regard to inoculation, for the introduction and adoption of which practice in England, and its consequent spread through Christendom, we are indebted to the influence and example of Lady Mary Wortley Montague, it is most justly remarked, that, however milder and safer smallpox might be thus rendered to the individual subject of it, still the necessary result of this practice must be, to propagate the disease itself more extensively, by reason of its contagious nature, and to keep its *fomes* alive and active for ever. Dr. Baron has unanswerably argued, from actual *data*, that such was the result while inoculation was equally in favour with the great and small of the land. The year 1722 saw the introduction of its practice into England. In 1782 the number of deaths from smallpox in the London bills of mortality exceeded those of any former year; and it is asserted that in Spain, where the practice of inoculation was

scarcely ever admitted, smallpox has caused less mortality, in proportion to the population, than in any country in Europe. "If," to quote Dr. Baron again, "documents prove this assertion, (and I have no doubt of its truth,) it had probably been better for mankind, that inoculation had never been adopted in the partial way it has been in Europe, without proper restrictions, and entire seclusion and separation from the uninfected."

The following facts may then be considered as substantiated, by the valuable information collected by Dr. Baron, which is highly interesting to every civilized community. 1. That a fatal pestilential eruptive disease, common to man and the lower animals, has been known from the earliest period of authentic history. 2. That the same, or at least a disease somewhat similar, continues to exist in various regions of the earth, often attended with rapid mortality. 3. That it appears to have undergone various modifications in re-

spect to virulence; and to be by artificial communication susceptible of still farther abbreviation.

Hence we see considerable light thrown on the character of Vaccine Inoculation. Hence is explained how sheep or horses or any other animals may be subject to the disease, as well as cows or oxen; that it is not a poison peculiar only to one variety, but may be found and propagated among many. Neither is that diseased appearance of the animal, which marks the existence of cowpox, so local as has been commonly imagined. Since Jenner's discovery of it in the dairy farms of Gloucestershire, it has been found in eighteen other counties of England, and in Persia. It has moreover been noticed in the district of Calabozo in the province of Caraccas, by Don Carlos de Pozo, physician of the residence, and by Humboldt in the Peruvian Andes and in Bengal. To these statements Dr. Baron appends the following conclusive observations, which well deserve to be quoted as appealing irresistibly to our convictions, from the mass of evidence,

of fact, and of opinion, which he has before submitted to the reader. "That this disease has already been met with in regions so remote from each other, is a proof that it cannot depend on mere local circumstances, either for its origin or propagation ; and that, like smallpox itself, it has pursued its victims through every clime and in every season. I cannot but feel that this circumstance, coupled with the facts already mentioned, adds great weight to the opinion as to the affinity between the two affections.

"This opinion, drawn as it is from an impartial consideration of well authenticated historical documents, comes with much force to support the sentiments of Dr. Jenner grounded on his own observations. He always, as already has been said, considered smallpox and cowpox as modifications of the same distemper ; and that, in employing vaccine lymph, we only make use of means to impregnate the constitution with the disease in its mildest form, instead of propagating it in its virulent and contagious form, as is done

when smallpox is inoculated. Had his views been deliberately examined, and had the consequences to which they clearly lead been kept in mind, by the different writers who have distinguished themselves by their zeal in the vaccine controversy, much of their bitterness might have been forborne, and needless and irritating discussions avoided: the fact having been admitted, as with reason it might have been, that there was such an affinity between smallpox and cowpox, it would have at once appeared reasonable to expect that the same general laws should govern both affections, with regard to their prophylactic powers. Thus, if there were different degrees of security afforded by smallpox against the recurrence of that disease, it was quite natural to expect that similar modifications might be found in the protecting virtues of the *variola vaccinae*." (Vol. i. pp. 240—242.)

Space will not allow us to follow Dr. Baron through his train of close and cogent reasoning in the eighth chapter of his work, or to give even a summary of its contents; nor indeed

is it needful to do so. The object which he has in view in this section of the inquiry, is, to place smallpox and cowpox in contrast with each other, and thus to mark wherein the excellences of the latter consist. This he effects by a detail of the fearful destruction and misery produced by the former in all parts of the globe, before vaccination was discovered, or introduced ; and the almost perfect immunity afforded by this inestimable discovery, wherever it has been faithfully practised. Argument indeed must surely be unnecessary to establish this point, after he has illustrated it by a variety and entire distinctness of proof, sufficient almost to satisfy Pyrrhonism itself. The advocate of Jenner and his noble work may triumphantly use the impressive words inscribed to the memory of Sir Christopher Wren, in St. Paul's Cathedral, "*Si monumentum requiras, circumspice.*"

In England there are many country parishes, abroad there are large districts, nay entire kingdoms, from which smallpox has been entirely excluded, ever since the general

use of vaccination. Still it is a melancholy truth that so feeble are the means employed to disseminate universally this providential boon, and so negligent are persons of its efficacy, that smallpox still rages occasionally in some of the most civilized states of Europe, and it forms the heaviest reproach to our nation, that the venom of the plague has not yet gone from us. Dr. Baron earnestly asks, and we would emphatically repeat the interrogatory: "Shall not these unquestionable statements arouse the attention of the community to secure all the blessings that are placed within its reach? Smallpox inoculation, I believe, is now abandoned by almost every respectable medical man. In the country it has fallen into the hands of the lowest and most illiterate of the people. Surely this ought not to be suffered. If qualifications are required for selling or dispensing medicines, the power to disseminate a poison, whose influence is not and cannot be confined to the individual who receives it, but may carry destruction through a whole district,

ought not, certainly, to be left at the disposal of every ignorant person whose prejudice or cupidity may prompt him thus to sport with the lives of his fellow creatures." (Vol. i. p. 288.)

But though floods of light have burst on this question, since Dr. Baron penned these sentences in 1827, which it might be expected would have instantaneously flashed a general conviction upon the educated classes of this country, yet if we look to the most recent official information, we shall find that great masses of our countrymen are still unwilling to appreciate, and indisposed to welcome the blessed discovery of Jenner—that they still view it with heavy reluctance, with apathetic indifference, or portentous ignorance. Insincere they may not be : but without a particle of zeal in its favour.

By reference to the last report from the National Vaccine Establishment addressed to Lord John Russell, as Secretary of State for the Home Department, which we shall here transcribe at length, (for the object of

this paper is not to amuse or gratify the fancy, but to instruct,) we have abundant proof afforded us, that, though the mortality from the smallpox has been greatly diminished since the time when vaccination was first introduced ; nevertheless it is painfully forced upon our attention, by this most important document, that with all Jenner's benign exertions to promote individual health and safety, on the widest scale possible, the smallpox still frightfully prevails among a great numerical class of our teeming population.

* * * * *

“ The amount of deaths by smallpox this year, within the bills of mortality, has been less than in any former one since vaccination was first promulgated ; but we are sorry to say that the disease has prevailed, with its usual mortality, in several parts of the country. The apathy under which some thoughtless people wait until danger from smallpox be at their very door, the unreasonable distrust of others of the protective power of vaccination (notwithstanding the satisfactory

experience of more than forty years over millions of mankind), and the artful schemes of unworthy inoculators, who avail themselves of such ill-grounded fears—all these circumstances contribute to countenance and to keep up the practice of inoculation, by which a perpetual source of contagion is supplied, to the great danger of those who have not already had the disease, or have not been vaccinated properly. A notion has been entertained by not a few, that the vaccine matter has lost its influence by time ; but this is not supported by analogy of any other poison. The virus of smallpox itself has lost nothing of its force in the course of 200 years ; and we are enabled to state a strong fact, with perfect confidence, in proof of the efficacy of the vaccine matter at present, viz. that of more than 70,000 vaccinated in descent with successive portions of the matter originally collected by Dr. Jenner thirty-eight years ago, vaccination has manifested its peculiar influence in all ; though of this number some hundreds have been subjected to the severest

trials, by exposure to smallpox in its most fatal form. No, it has not worn out its protecting property. The rarity of an example of disfigurement by smallpox, now to be found in the theatres, in churches, or any large assemblage of the people, affords some proof of this ; but unfortunately, it was propounded by its original discoverer too broadly, in recommendation of the novelty of vaccination, that any person might perform the operation successfully, when, as we confess, and desire to have it made known, that to do justice to the merit of vaccination, it ought to be performed by well instructed and skilful surgeons, who are able to discover whether there be any temporary ill prevailing in the habit of the patient to be submitted to it, in the form of a slight cutaneous eruption (for this will often render the body unsusceptible, for a time, of effectual vaccination) ; whether the prevalence of any epidemic disease may interfere with the success of the process ; for it has been remarked by several experienced vaccinators, that the influenza of last year

did make it necessary to repeat vaccination more than once or twice before it took its proper effect. Merely to have been vaccinated has satisfied multitudes of those who apply to our establishment for this protection against smallpox ; and we cannot help lamenting that it is so difficult to prevail upon parents to bring back their children, at a proper distance of time, to ascertain whether the operation has been unsuccessful, or requiring to be repeated to ensure its efficiency. This board has been unremittingly occupied, and has supplied 20,000 charges of lymph more this year than it has sent out in the course of any former one ; and not only have our army and navy, and the colonies, been supplied, but most of the capitals of Europe have availed themselves occasionally of our resources, in which they express their entire confidence.

“ H. HALFORD.

“ E. T. MONRO, M.D.

“ A. CARLISLE.

“ C. HUE, M.D. Registrar.”

“ The schoolmaster is abroad,” it has been proclaimed with authority. We would strongly then say, that one of his chief duties is to make known to the more enlightened part of the multitude, the vast importance and necessity of vaccination being performed only by regular surgeons, or other competent professional men. It is very grievous to think of the mischiefs springing from an imperfect vaccination. A silly boor receives a few pricks on his arm from the lancet of some ignorant country-quack, who gives him the most perfect assurance that he is vaccinated ; soon after, he repairs to a large town, catches the smallpox ; and then it is quite of course, that, from such instances, sentiments the most hostile are entertained by the common people against vaccination. Thus full credence is given to errors as vulgar as they are unjust. Being through ignorance incapable of striking out truth by the confrontation of different accounts, if any attempt be made to put things in a fair balance before them, and to prevent them from becoming dupes to de-

signing knaves, every endeavour is rendered utterly fruitless by their dwelling only on the few instances they have known of smallpox after cowpox. Their minds being thus pre-occupied, it carries not the weight of a feather with them, that vaccination is a perfect preservative from smallpox in an infinite majority of cases, and that when it does not afford this ample security (which may be reasonably attributed to the reprehensible carelessness of not oftener vaccinating with matter taken immediately from the recently infected animal,) still its sanative virtues are such, that it changes a most dangerous into a harmless disorder, so that children have been laid with perfect security in the very bed with those who laboured under the confluent smallpox, while those formidable memorials, blindness, ruined constitutions, and disfigured countenances, which are inflicted by smallpox, point out the incalculable mischiefs that arise from yielding to cowardly and unfounded prejudices.

Notwithstanding all this, it may be said,

and with seeming justice, that the aspect of the times requires that particular deference should be paid to popular opinion. But *public opinion*, which is a widely different thing, although too often confounded with the former, ought pre-eminently to be taken into consideration ; because it seeks to attain its ends solely through the medium of argument and evidence, expressed in a calm and temperate manner, and because that designation comprises the more influential, considerate, and judicious part of the community. Whether vaccination is an effectual preventive against smallpox, is a question which, after being brought to the test of the most penetrating scrutiny, has been decided in the affirmative by every medical board in Europe ; and be it here observed, that those of the profession who are sceptical upon this paramount point, cannot gainsay the well attested and remarkable circumstance in the exceedingly valuable report of the medical faculty in Keil upon cowpox in the duchies of Schleswig and Holstein, of a woman having the cowpox when a year

and a half old, and which had the power of protecting her from the infection of smallpox for sixty years¹,—a case which is surely fitted to cause doubt of the preventive virtues of vaccination becoming progressively fainter and fainter.

Does not then such a statement as this, in addition to the foregoing ones, sound trumpet-tongued for the State having recourse to certain restrictive regulations, for the purpose of utterly exterminating smallpox by means of vaccination in this country—especially as its insular position is so singularly encouraging for this most desirable and wisest of philanthropic efforts? We broadly therefore affirm that, inasmuch as the lives and happiness of God's creatures are things of infinitely more importance than our foreign negotiations, our domestic arrangements, our fiscal regulations,—the government of this country will be guilty of a positive dereliction of its duty, if they do not vigorously bend

¹ See upon this subject, the *Edinburgh Review*, Jan. 1810. Art. v.

their thoughts to prevent individuals from making themselves, as it were, walking and living contagions. We hope and believe that the following suggestions, coming as they do, from one of its leading members, and which embody in them the right principle of action, and the bitterest experience of many a sorrowing family, will help us in our endeavours to extirpate from the British isles a pest which, according to the late Dr. Sims' evidence before the Committee of the House of Commons, has been annually fatal to forty thousand persons, one in every six being computed to be swept away by it.

“ Though I would not interfere,” says the present Lord President of the Council, “ with the freedom of an individual, with regard to the mode of preserving his own health, yet I have no difficulty in saying that no individual has a right to conduct himself, even in the pursuit of preserving his own health according to the best of his judgment, so as to endanger the health of a great portion of the community by spreading an infection ; which is the case when individuals go abroad, while they are

under the process of inoculation under the old mode. This practice I understand to be increasing ; and it may be attended with dangerous effects. I know that in a country like this, where the inhabitants have been so accustomed to liberty in almost every thing, and in this practice among the rest, it must be difficult, and, without some infringement of liberty, perhaps impossible, to put an end altogether to this inconvenience. This, I am afraid, can hardly be done without some sort of compulsion ; and that so odious to the people of this country. But although compulsion be odious, while it calls on mankind to forbid their doing that which is hurtful to others, I think that a State has not only a right, but that it is its duty to enforce it. I would therefore say, that, if persons will persist in following the old system of inoculation, they should be compelled to confine their practice within their own houses, and should not be allowed to spread their ravages and this pest over the community at large."

With evils then before us, the possible extent of whose consequences no words can ade-

quately describe, is the nation (we would ask, with all the anxiousness which the immeasurable importance of the subject demands,) to continue exposed to smallpox, because some individuals, from the want of education, defects of the head, and other indisposing causes, are not qualified to judge properly of their rights, and to apprehend the duties annexed to them, as the legitimate grounds of their possession? If the privilege of deciding a question of this high and durable interest, is to be given to the most ignorant instead of the best enlightened,—if there is to be this retrogradation in the kingdom of knowledge,—then we can only say that the inducements will be fewer than ever for men to devote their daily and nightly toil for the best interests of humanity.

We may incur the displeasure of many a violent anti-vaccinist, by holding an opinion more suited (as they may deem it) for the meridian of Morocco than that of Middlesex, when in relation to this subject we say, in the energetic words of Mr. Sturges Bourne, that the legislature would be as much justified in

taking a measure to prevent this evil by restraint, as a man would be in snatching a fire-brand out of the hands of a maniac, just as he was going to set fire to a city. (Debates, p. 79.) In making such an avowal, this firm minded individual could not be accused of losing sight of the direct and specific distinction, drawn by the Apostle, between things "lawful" and things "not expedient." Assuredly not. But he here, like a wise legislator, preferred expediency to law, the welfare of the universal British people to an abstract right; and therefore in this matter of high public concernment, felt no jealousy of the interference of government.

Now if we closely examine some of the clauses and enactments in the bill brought into the House of Lords in 1813, by Lord Boringdon, for regulating the practice of small-pox inoculation, and checking the diffusion of that disease, we cannot deny that in a practical sense they may appear unconstitutional: though here be it observed that many a bill have we seen, in which the privileges of the

constitution were more directly invaded, but which met with the approbation of our leading law characters. Nothing short of the most demonstrable necessity, we are perfectly ready to admit, would justify an interference with our natural rights. Before, however, we can come to any conclusion upon this delicate and perilous question, we must ascertain the comparative advantages and disadvantages under which they are placed. The member of a well organized community can imagine many cases for a command of the state, which would be apparently inconsistent with his personal free agency, yet nevertheless could be defended on the plea of being followed with the most serviceable consequences. The compulsory system may be said to work well, where it prevents the parent, by all proper means, from neglecting his duty.

We are told by one whose opinion is entitled to the gravest consideration, as not being rashly conceived, but formed after the most circumspect, scrutinizing, anxious, and laborious investigation of the fatal results of cho-

lera and smallpox, that *the mortality from smallpox during the past year has greatly exceeded that from the Asiatic cholera of 1832.* Such is the statement of Dr. Hastings of Worcester, who is alike distinguished for his medical and scientific attainments; and which is in strict accordance with what we have heard elsewhere from an authority no less respectable. Here too it is well worthy of notice, that the admissions into the Smallpox Hospital since the commencement of the present epidemic in November, 1837, have exceeded those of any year since 1781; and that the institution is no longer able to relieve the other metropolitan hospitals from the burden of their smallpox patients: while the remarkable increase of smallpox during the past year, (in one London hospital alone four hundred and thirty-six cases having been admitted within twelve-months,) must appear an appalling fact to the thoughtful reader.

There is, therefore, the most clear and positive evidence of this important and alarming assertion which we have quoted;—important,

as it shows the necessity of the public safety being entrusted to the executive government, —alarming, lest the epidemic should again and again prevail throughout these dominions and so a considerable portion of the unprotected population, not only in our metropolis, but even in our rural villages and hamlets, fall victims to it. In these critical circumstances, are we not then justified in arguing strongly, nay, in expressing our sentiments with much vehemence, that the British Parliament should adopt the example given them by several of the Continental states, in framing provisions for the preservation of all classes from this direful scourge? There is, we may venture to affirm, no country in Europe in which vaccination is so general as in Denmark, and *consequently*, no country has suffered less from smallpox. Ever since April 1813, it has been enacted there, that no one shall be admitted into a school or trade, no one shall be confirmed, no one aspire to a public office, no one shall engage in the profession of arms, or marry, without a certificate of having been vaccinated

with full success. A vaccine institution, under the immediate superintendence of the government with properly appointed medical officers, is supported at the public expense, and thus assures to every person effectual vaccination.

Dry precise facts, such as these, may be wearisome to those who are careless of their leading results, but they will be considered facts entitled to the most serious notice of all who concur with us in wishing to see it laid down as a general principle by the government, to be universally applied, that the house in which smallpox appears should be put under quarantine. For what can more forcibly illustrate the necessity and policy of a measure of this nature, than the foregoing statement with respect to Copenhagen? while it can be no marvel to hear, that, by these means, smallpox has been reduced in that capital, from 5500 during twelve years, to 150 during sixteen years. By pursuing similar restrictive measures, it has been diminished in Prussia from 40,000 annually to less than 5,000; and in Berlin in 1819, it terminated fatally with

twenty-five persons only. In Bavaria no more than five died of smallpox ; and in the principality of Anspach no one had been affected by it. Yet in these very realms where vaccination had its origin, the most selfish feelings, the most unexampled apprehension, the most inveterate prejudices, and the most superstitious antipathies, are allowed to be indulged with serious and permanent injury to the public good. But, however the unreasoning spirit of freedom may prove a source of disquietude to the firm and steady friends of vaccination, this we may take comfort in thinking, that the medical profession at large is becoming vividly awake to the urgency that there exists, of some farther regulations for the suppression of a disease which exercises such fatal potency over the human species, and which European, Asiatic, Christian, and Heathen are alike concerned to extirpate.

The Provincial Medical and Surgical Association, an institution consisting of about 1100 physicians and surgeons, residing in different parts of England, which owes no

ordinary debt of gratitude to Dr. Hastings as its founder¹, are directing their attention (let it be heard with rejoicing,) to the best possible modes for applying a remedy to one of the greatest maladies that is to be found in the world. A circular has been sent to every member of the Association, inquiring into the present state of his immediate district, and also into the ravages that have been committed by the smallpox during the late epidemic; and when the replies to these queries shall have been returned², a section of the members, of which Dr. Baron is the chairman, will report upon them, and recommend such a protective plan, such safeguard enactments, as may be deemed most suited for the realization of the wishes of the enlightened portion of the national community. We may therefore confidently anticipate that the developed

¹ It is highly creditable to the feelings and character of the Association, that its members have recently marked their high sense of esteem for the invaluable services of Dr. Hastings, by requesting him to sit for his portrait to an eminent artist, which is to be presented to Mrs Hastings.

² See the Appendix (A).

facts, put forth after a large, deep, and impartial inquiry by the joint assent of so many independent professional men, whose experience is practical, not theoretical;—who, as accurate appreciators of the laws of evidence, are so capable of judging soundly with respect to all the specialties of the cases that come under their notice;—will carry that prevailing weight with the government and the legislature, which shall be the means of facilitating what may appear to them difficult to reduce to practice.

From a body of men, who, by the force of unanimity alone must be said to speak authoritatively,—(for theirs will be the most desirable and purest of all agreements, that which is established after the freest discussion of the soundness of every position, and the conclusiveness of every reason;)—from men so circumstanced, some of whom by their science and talents, adorn the circle in which they move, and do honour to the country in which they live,—we must suppose our rulers willing to receive suggestions, and so to follow their

guidance, as to apply the power of the state to their great measures of utility. For we trust and believe that the Association will be able to urge their counsels upon them with an emphasis that shall command an audience, and with an effect similar to that when the Roman Senate came to the awful vote, *Caveant consules ne quid detrimenti respublica capiat*¹.

There is this good old dictum of the Commons House, that nothing is beyond the reach of it. Now if Lord Chief-Justice Ellenborough could say, without forfeiting his character as a lawyer, that should the Smallpox Hospital be found hurtful, it must come down, how largely soever we might admire and praise the beneficent designs of its founders; if Parliament could do that which appears so directly adverse to the genius of the constitution, why may it not, in such emergencies as we are here contemplating, issue a *propaganda* against smallpox inoculation, and for general vaccination? Why should it not pass a bill

¹ See the Appendix (B).

to effect this object, so prolific of general benefit, and vest its power in a central board, which should act upon the responsibility of men of that high professional worth and talents, that their claims to public confidence would be alike admitted by the aristocracy of rank, of wealth, and of intellect. Some there are who, from the habit of examining everything for themselves, will receive no facts but which come to them in the shape of a detail. If they wanted then a farther justification for this proposed interference with the boundless privileges of individual judgment, in order to attain a general good, and avoid an unnecessary evil, let them listen to the following details; the bare contemplation of which excites in us an emotion similar to what we should feel upon visiting a field of victory, where our ears were assailed with nothing but shrieks from the wounded, and lamentations for the dead.

In 1819 a smallpox epidemic prevailed in Norwich. From 1813 to June 1818 this disease had not been known in that city. A

country girl became infected with it, as she passed through a market-town in her way to Norwich, where soon after she arrived, she sickened of smallpox. From this single individual more than three thousand persons, directly and remotely, (as it may be said,) caught the disease, five hundred and thirty died of it, forty-three were buried in one week, 156 in June, and 142 in July. According to the faithful representation of Mr. Crosse, a surgeon of high eminence and great experience practising in that city, there were in Norwich above ten thousand vaccinated persons exposed to this frightful epidemic. Of those who had neither had cowpox nor smallpox, about 3000 caught the disease, and 590, that is more than one in six, died. Of those who had previously had the smallpox, many caught it again as severely as if they had never had it before, and one died. Of those who had been vaccinated, amounting to 10,000, rather more than two in every hundred were affected by the smallpox contagion; but it almost invariably produced a short and

trifling disease: in only six instances did it occasion the regular smallpox; and in two only did it terminate fatally,—*two instances out of ten thousand!*¹.

Does not this whole case then give complete evidence for the necessity, the dire necessity for the government taking into consideration, immediately and earnestly, the recommendatory measures of the Provincial Medical Association; and not to suffer another year to pass, (for this delay would be mischievous and might be fatal,) without this necessary infraction upon the liberty of multitudes of the poor, the restraining of them from going abroad unprotected by vaccination; opening as they do, a ready reception for smallpox, and so carrying about them a noxious influence to be diffused as a mephitic pestilence wherever they go? Now with farther reference to that great desideratum, to elucidate the protecting power of vaccination in a locality which is con-

¹ We refer such of our readers as take a deep interest in this subject, to the Quarterly Review, Art. XII. No. LXV. for some farther valuable information relative to it.

stantly less or more exposed to the influence of smallpox, we would direct the attention of our readers to these following facts, simple indeed, but of inestimable value ; for upon such as these all true theory must be based, all sound knowledge mainly depend.

“ There are no sufficient *data*,” observes Dr. Baron, “ to enable us to determine the exact proportion of persons that may be attacked with smallpox, after having been vaccinated. By far the most valuable document that has appeared in this country, has been obtained from the Royal Military Asylum at Chelsea. The return embraces a period from 1803 to 1833. The number of children reputed to have had smallpox previous to admission, was 2532, of which number, 1887 were boys, 645 girls. The number of boys reputed to have been vaccinated previous to admission, was 2498, of girls, 562 ; making a general total of 3060. The number who had smallpox, after reputed smallpox, was 26 ; 15 boys and 11 girls. The number who had smallpox after reputed vaccination was 24 ; 19 boys and 5 girls. The

number vaccinated at the Asylum, subsequent to admission, was 628 ; 460 boys, 168 girls. Of this whole number, only 2 boys and 1 girl caught the smallpox. The number who died of smallpox at the Asylum, was 4 boys and 1 girl ; of these 5 children, 3 had the disease after reputed smallpox, and 2 had never been vaccinated or undergone smallpox before. (See Appendix to Report from Select Committee on the Vaccine Board.) This document, so far as it goes, fully supports Dr. Jenner's assertion, that the protection afforded by vaccination duly performed, is quite equal to that afforded by smallpox itself." (Vol. ii. p. 245.)

But to return to Jenner.—In consequence of his whole time being dedicated to a discovery which was to be so momentous to mankind, from his constantly watching and speculating upon its effects ; in a word, from his mind, his whole mind being absorbed in them ; his biography is (in fact) the history of the developement, perfection, and completion of vaccination. Dr. Baron has un-

questionably shown great zeal and painstaking in his researches for all authentic information respecting the private and domestic life of his illustrious friend, from his school-days to his sudden death by apoplexy, on the 26th of January 1823, in the full possession and energy of his faculties. In this accurate and detailed account, many interesting facts may be found of his beneficent turn of disposition, and passionate desire to promote the good of his fellow-creatures individually. Passages may be culled from his letters illustrative of his taste for the fine arts, for literature, poetry, and music, for geology and natural history ;—passages also which show him to have been an enthusiastic lover of the scenery of nature, especially when spring wears her robe of beauty, or when the landscape is clothed in all its summer glory. Yet, from the moment when vaccination first suggested itself to his mind, that subject became the paramount and central object of his thoughts: no diversion of other questions could draw him from it. It was so entirely and

absolutely in the ascendancy, that it seems always to be more or less the chief cause of his writing to his most intimate friends. We confess to be very much struck with the unassuming yet decisive words, in which he concludes his conversation with a friend, after announcing his discovery to him in their ride between Gloucester and Bristol. "Gardiner, I have entrusted a most important matter to you, which I firmly believe will prove of essential benefit to the human race. I know you, and should not wish what I have stated to be brought into conversation: for should any thing untoward turn up in my experiments, I should be made, particularly by my medical brethren, the subject of ridicule."

We learn from Dr. Baron that the idea of substituting cowpox for the variolous eruption, first occurred to Jenner during the period in which he was placed as a pupil with Mr. Ludlow, a skilful surgeon at Sudbury. The simple fact of a young girl's saying that she could not receive smallpox, because she had taken cowpox, threw his mind into that

train of thought, which was hereafter to produce such widely spreading beneficial results. He did not, it is true, make any attempts to enter directly upon that test or criterion : but the statement so firmly rivetted his attention, that, as early as 1770, he mentioned to John Hunter the prophylactic virtues of cowpox. Jenner was in his twenty-first year when he went to reside with this celebrated person ; and surely it was an enviable ground of distinction for one so young to become the favourite of this deep and original thinker and single-hearted man,—of him who has added such lustre to our medical annals by his genius and virtues, and of whom it may be said, that he elevated surgery to the dignity of a science, by his admirable treatise on Inflammation, and his physiological and pathological discoveries. No fact can be better established, with reference to the number or nature of his anatomical or physiological researches, than that all Hunter's reasonings proceeded on the safe and legitimate principle of never pretending to demonstrate

a thing which he had only shown to be extremely probable. Inquiries therefore, in which facts were bent to preconceived theories, were considered as always useless from leading to no clearer conviction. He felt no confidence in the justness of those conclusions, which were not sanctioned by the test of experience. It was the essence of his system, its aim and end, that every thing in illustration and confirmation of his physiological theories, should be grounded with the results of an inductive generalization. In short, by his inquiries into comparative anatomy, he paved the way for those astonishing results, which have rewarded the labours of the celebrated Cuvier and other investigators of the fossil animals of an antediluvian world.

The practical lesson suggested to Jenner, from this accurate course of study, mainly contributed to lay the foundation of those habits of observation, comparison, and reflection, and of more than ordinary perseverance and industry, which finally enabled him to leave such permanent traces of the

influence of his discovery behind him, that it might be almost said, he would not have incurred the charge of presumption had he applied these vaunting words to himself, "For this, among the rest, was I ordained." Many have sought to depreciate the rare merits of Jenner, by calling him a fortunate man: they might, with equal fairness, have styled him a mere empiric, in the stead of characterizing him (which we may with justice do) as one who was deeply imbued with the spirit of Bacon's philosophy. Take, in proof of this assertion, his skilful experiments upon the circulation of the blood in torpid animals, and his elaborate paper upon the habits of the Cuckoo; in both which discussions he shows how, by a careful and philosophical observation of the phenomena presented to his view, their most hidden properties were to be elucidated; while, with regard to his immortal discovery, so evidently received from a wide field of physiological study, the apparently insurmountable difficulties which he struggled with, before he could effect his purpose, of

arriving at accurate information, were to be overcome only by one who could establish his claims to the title of a great experimental philosopher. We will specify a few of these impediments, in order that the reader may form correct notions on this question.

There are many striking anomalies in the disease affecting the cow, which seem almost to defy explanation. The true *variola vaccinae* were only casual in their occurrence, and even then very local. Eruptions moreover, differing but slightly in resemblance from the real vaccine, manifested themselves occasionally on the udders of the animals; all of them communicating infection to the hands of the milkers, but yet not at all preventive of smallpox. Finally, and fatally (as it would seem) at first to Jenner's hope, cases of smallpox were found to have taken place in individuals who had indisputably received the true vaccine infection. These difficulties, which obstructed the outset of his course, Jenner surmounted with consummate sagacity and skill. By a series of well con-

trived, and well conducted experiments he gradually removed them. By a patient investigation of the diseases incident to cows, he at length accurately discriminated the real vaccine infection, and laid down a correct diagnosis of its appearance. He demonstrated that the occurrence of smallpox among some of those who certainly had received the vaccine disease, was explicable on grounds which did not frustrate or nullify the prophylactic virtues of the latter. He proved satisfactorily, that it was only at a certain period of the eruption, that the vaccine lymph possessed its salutary powers ; and that, if not used at that precise time, its value would be deteriorated, or altogether lost. Steadily following his plan of inductive investigation, Jenner deduced from it three rules, not more or less necessary, but indispensable to be observed, in order to ensure full success in vaccination ; which rules, from the too frequent prevalence of the smallpox in the country, on late occasions, we fear, or rather we know, have been most reprehensibly neglected.

The inquiry had hitherto been limited to the casual disease ; but on the 14th of May, 1796, a day to be ever remembered by those who hold in reverence the memory of Jenner, this disease was first communicated from one human subject to another. Language is inadequate to express the discoverer's joy on witnessing the remedial virtues of the *variola vaccinae*, thus matured and brought into perfect action. Well might he have repeated, while yielding to the heart's movement, the exclamation of Coriolanus, " Alone I did it." But it is right that Jenner here should deliver his own modest sentiments upon this most interesting and memorable occasion. " A boy of the name of Phipps was inoculated in the arm, from a pustule on the hand of a young woman who was infected by her master's cows. Having never seen the disease but in its casual way before, (that is, when communicated from the cow to the hand of the milker,) I was astonished at the close resemblance of the pustules in some of their stages to the variolous pustules. But now listen to the

part of my story : the boy has
ulated for the smallpox, which,
to predict, produced no effect.

— ~~shall now~~ pursue my experiments with redoubled ardour."

Dryden, in his promising school-poem on the death of Lord Hastings, who immaturally fell a victim to that pest of infancy, smallpox, has made of the pustules; first, rose buds, then gems, and at last magnifies them into stars :

" No comet need foretell his change drew on,
Whose corpse might seem a constellation."

If however pustules according to this conceit of " glorious John," are to be so likened, the comparison in question is due only to the life-giving ones of vaccination, not to the frightful and deadly eruption of smallpox. It is not here out of place, while it may be a novelty to the general reader, to notice Jenner's own appropriate and felicitous answer to Mr. Fox's question, What is cowpox like ? " It is exactly like the section of a pearl on a leaf." The fitness of this similitude will be considered as very striking and impressive,

by those who are conversant with the peculiar character of this disease. The *experimentum periculosum* is a complaint as old as the age of that idol of the medical world, Hippocrates : but Jenner, when he had mastered his, went on conquering and to conquer ; till, by fresh experiments, in which he pushed nothing too fast or too far, while each chain of reasoning was united link by link, he at last accumulated that immense treasure of facts, which warranted him in laying down this fundamental, this original, this cardinal position, " That the cowpox protects the human constitution from the effects of smallpox." His inquiry was at length published in June 1798. It contained twenty-three cases, copiously detailed, illustrative of the progress of the infection. The first sixteen were examples of the casual disease ; the rest were the result of inoculation. Not the least remarkable among the former is, that of an individual, who, having been infected from the heel of the horse, afterwards completely resisted smallpox inoculation. Yet this first rate dis-

coverer, was (as some would have it) only 'a lucky man : ' as truly might his adversaries say, he was an unmolested one.

With the first volume terminates the mention of the authoritative recognition of Jenner's public services by the legislature, and a grant of ten thousand pounds in remuneration of them,—a pittance which scarcely falls within calculation when compared with the vast sums expended by this country, certainly not to produce the greatest sum of happiness of which our nature is capable, but in unjust and unnecessary wars. In allusion to this niggardly and totally inadequate reward, for a discovery which has made his name so famous through the enlightened divisions of mankind, and which should have been testified by the immediate gratitude of the nation placing its author in a state of complete independence, Mr. Benjamin Travers, an eminent city merchant, closes one of his letters to Jenner with the following strong animadversions : " If you had undertaken the extinction of smallpox yourself, with coadjutors of your

own appointment, I am confident you might have put 100,000*l.* in your pocket, and the glory be as great, and the benefit to the community the same." Good right indeed had Jenner, after the many laborious days and sleepless nights it cost him to remove a disease which was of such unfathomable antiquity, that almost without exaggeration it might be said to be coeval with the flood, to remark with just indignation to one of his correspondents upon the smallness of the grant to him ; for even those who at this time affect to regard so much the economy of the public money, must allow it to be shamefully unequal to his prodigious merits. " How hard, after what I have done, the toils I have gone through, and the anxieties I have endured in obtaining for the world a greater gift than man ever bestowed on them before, (excuse this burst of egotism,) to be thrown by with a bare remuneration of my expenses !"

In order to satisfy the reader that such sentiments were not put forth hastily, petulantly, or without weighty reasons, it may be

necessary to state briefly, but impressively, that a committee appointed by the directors of the Vaccine board, to inquire "whether Dr. Jenner was not a sufferer in his pecuniary circumstances, in consequence of the time which he had devoted to his valuable discovery of vaccine inoculation, notwithstanding the parliamentary grant of 10,000*l.*," had unanimously determined in the affirmative. Two years after Jenner had thus expressed his just cause of offence, (for we will not call it an ebullition of anger, as he had a strong plea for crying out against the government for their shameful parsimony toward him,) in 1807, it was, that the House of Commons, impelled by juster notions of the immense debt of gratitude which the nation owed to the discoverer of vaccination, proposed, through the medium of the Chancellor of the Exchequer, "that a sum not exceeding 10,000*l.* be granted to his Majesty to be paid to Dr. Edward Jenner, as a reward for promulgating his discovery of vaccine inoculation, and that the same be issued without any fee

or other reward whatsoever." One member (it would have been charity in Dr. Baron to have omitted his name,) was pleased so far to expose his ignorance, folly, and absurdity, as not only to deny the specific benefits of vaccination, but even to dispute Jenner's claims to the honour of the discovery. But Mr. Edward Morris, a name ever worthy of honourable commemoration by the vaccinist, so convinced the House by his arguments and eloquence, that the author of vaccination had created an epoch in the medical history of the world, as the giver of a principle of new life, if we may thus venture to express ourselves, that at his suggestion, the House consented, though not until after considerable opposition, to increase the grant to 20,000*l*.

Now if we did not remember that strong and damning proof of the prevalence of prejudice against Jenner's discovery, even in some denominated Scientific Institutions,—if we had not occasion here to recollect, that twenty years after vaccination had subdued smallpox in China, Hindostan,

and the American continent, variolous inoculation at the London Smallpox Hospital was still allowed, we might have reasonably expected, that the before mentioned grant would have been bestowed with a sudden acclamation : and that we should now look back with astonishment, that there could have been found members of the British Senate to marshal themselves in hostile array against the vote. The records of parliament, however, tell us, that, when the question was put, "that 20,000*l*. do stand ^{up} apart for the resolution," and the committee divided, the result was then, Ayes, sixty; Noes, forty-seven; majority thirteen :—a result which strikingly shows how slowly antiquated and senseless prejudices are abandoned by those whom the world calls enlightened ; for this was a question totally disengaged from party politics, in which every member of the House was really left to vote according to his judgment.

It is according to every maxim of historical evidence, that in those kingdoms where the arts of civilization have made the greatest pro-

gress, there should be “the more appropriate aptitude” (to use one of Bentham’s peculiar phrases) for the exercise of wisdom and beneficence. Sometimes, however, the direct contrary of this proposition turns out to be the real truth. That a people holding the enlightened position which we hold in the world, taking the lead in the noble career of usefulness, should meet vaccination with a grudging reluctance—with a half acquiescent submission—with a limited recognition, while considerable bodies among nations which, compared with us, in every other respect, were children in intellect, though men in growth, should receive vaccination with the deepest, warmest feelings of gratitude, so that here we may apply the words of the Apostle with all their strength, “the foolish things of the world were appointed to confound the wise,”—cannot certainly be accounted for on general principles, since, with reference to them, such a state of things would appear as fabulous.

We cannot indeed give any attention to the history of vaccination at home or abroad, with-

out being much struck with the contrast of its reception, among us, and among some of the ~~semi-barbarous~~ nations of the earth. The best solution perhaps, ~~of this difficulty~~, is to be found in this well considered and ~~well expressed~~ remark of Lord Lansdowne to Jenner, who, after saying with equal truth and elegance, “ You have conquered more in the field of science, than Buonaparte has conquered in the field of battle,”—observed,—“ the importance of your discovery will be much better comprehended by those who have been in the habit of occupying or frequenting countries characterized by heat of climate, than by those who have constantly enjoyed the advantages which belong to a temperate region.”

These remarks are truly characteristic of an enlightened mind and solid judgment; while to the noble writer's honour be it ever recorded, that he early distinguished himself when Lord Henry Petty, among the most strenuous supporters of vaccination. The foregoing observations were made in a letter from his Lordship to Jenner in 1806, and they bear

immediate reference to the vaccine expedition undertaken by command of the King of Spain (and worthy of its golden glorious days) for the benefit of all his subjects in South America. One extract from this very interesting and circumstantial account we shall present to our readers, in confirmation of what we have just advanced, that the first country in Europe was not raised above the least civilized, in the foregoing point and particular.

“ The conductors of the expedition were everywhere welcomed with the utmost enthusiasm. It was to be expected that the representatives of the Spanish monarch, and all the constituted authorities, would gladly co-operate ; but it was scarcely to be anticipated that the unenlightened minds of the Indians would so soon appreciate the value of the mission. It is, nevertheless, most gratifying to know that the numerous hordes which occupy the immense tract of country between the United States and the Spanish colonies, all received the precious fluid with the utmost readiness. They acquired the art of vaccinat-

ing, and soon performed the operation with great dexterity. Fame had preceded the arrival of Salvani at Santa Fè; on approaching the capital he was met by the viceroy, the archbishop, and all the civil and ecclesiastical authorities. The event was celebrated with religious pomp and ceremonies; and in a short time more than fifty thousand persons were vaccinated. Similar honours awaited the expedition throughout its whole course. At Luito they were greeted with boundless joy and festivity. Such expressions well became them. The people of this country, the Indians more especially, having been often scourged by the horrid ravages of smallpox, regarded it as the most terrible infliction which Heaven could send them." (Vol. ii. p. 80.)

It has been controverted among some learned writers, whether China or Hindostan should be considered as the cradle of smallpox: but, after the most careful attention that we are capable of giving the subject, our conviction is with Dr. Baron, that it originated in Egypt: we shall not therefore add one word

more upon this debatable point. It is very well known, from the oldest records, that at an early period the smallpox, when propagated in the natural way, made the waste of life prodigious, among the immense masses of population in the Chinese empire. We learn too from documents of a recent date, that, before Jenner's discovery was imparted to China, one third of its people were supposed to be thinned by it, whenever it raged among them. What a *God-send*, in the true, the sublime sense of the word, must vaccination have proved to China! The following communication of Sir John Barrow to Jenner, on this subject, will be perused with intense interest by the philosophic statist, and by every friend of beneficence.

"3, Charlotte-street, St. James's-square,

"9th June, 1806.

" Sir,

" I have great pleasure in being able to inclose, for your inspection, a short treatise in the Chinese language on the vaccine inoculation, translated by my friend Sir George

Staunton, and published by the Chinese in the city of Canton. The curiosity of an English work issuing from the Chinese press, however extraordinary, gives way to the more extraordinary facility with which this people (always strenuous in opposing every innovation) has submitted to receive the new practice of vaccination. Not only the surgeon of the English factory, but numbers of the Chinese were constantly employed in communicating the disease, from the moment it was perceived with what ease and convenience the patient went through it; and they had actually raised a very considerable subscription for the purpose of establishing a vaccine institution, for promoting the practice in every part of this extensive empire. Thus the English at length, as well as the other Europeans, have established their claim, (which though last is not the least,) on the gratitude of the Chinese. As the small-pox in China has usually been attended with the most fatal effects, there is little doubt that the same willingness which has manifested itself at Canton, to receive so mild and effec-

tual a substitute, will be felt in every province of this populous country ; and the more so, as public confidence there is not likely to be shaken by that kind of illiberal and undignified opposition which has been so industriously employed elsewhere. By every real friend of humanity, and by you, Sir, in particular, this intelligence must be received with sensations of peculiar satisfaction.

“ I have the honour to be,

“ Sir,

“ Your most humble servant,

“ JOHN BARROW.”

While then the most distant empires of the world were estimating Jenner's gift to them at a price that could not be valued “ with the gold of Ophir, with the precious onyx, or the sapphire stone ;”—while the governments of France, Russia, America, Turkey, and Algiers, were sounding their mighty obligations to him, the beneficial results of whose genius and sagacity we cannot, as Englishmen, contemplate without feelings of pride and

thankfulness that we are members of the same country to which he belonged;—while the wisest and most philosophic of continental statesmen were coalescing in the homage due to this glorious triumpher over the fell exterminator, smallpox ;—while the most learned societies abroad, and the first university of our land, were delighted to confer their highest distinctions upon him as one of the luminaries which adorned the medical hemisphere, and whose fame had become the property of nations ;—the Royal College of Physicians refused on this occasion to tread in the footsteps of Oxford ; they would not pursue her just and noble way of thinking and acting ; they determined (we utter it with pain and amazement) *not to grant their diploma to Jenner without examination*. Centuries and tens of centuries may pass away before another Jenner arise, to stop, by his discovery, the devouring grave from adding to her spoils ; yet would not these sticklers for usages, originating perhaps from some preponderating temporary and accidental influence,—these scrupulous ob-

servers of precedents, created without any attention to broad and general principles,—abate one iota “ of their strict statutes and most biting laws,” in behalf of this interpreter of Nature’s mysteries. Every liberal and enlightened mind will readily admit, that great evil may occasionally be produced by disturbing long established forms, and new-modelling a course of proceedings. None can be more jealous than we of novelties, or more dread the sweeping away of landmarks, none less disposed to undervalue the real wisdom of our ancestors: but, if ever man could claim an exemption from prescriptive ordinances, and could justify that claim by services to mankind at large that would render his name memorable to the end of time,—that man was Jenner.

That the then brightest ornament of the college, Dr. Baillie, should have manifested a generous indignation against the proposed measure—should have lifted up a protesting voice against making it an affair of partisanship, and not an affair of the heart,—was

natural in one whose whole professional career was signally marked by independence of spirit, elevation of honour, and rectitude of conduct. In this question of passion and party, these usually prevailing qualities (it might be thought) would have given effect to his opinion. But they availed not, nor the opposition of a few more of the same stamp with himself, against the union of zeal for victory with the pride of authority, against envy and malice backed by superior numbers, having this sole actuating principle, a steady, persevering resolution not to admit Jenner without examination; and therefore certain of effecting his exclusion. They knew full well that he had not time or means to prepare himself by reading and study for the ordeal, since his business was not Greek and Latin, but to concentrate all the faculties of his intellectual frame to the accomplishment of one great design—to save millions upon millions from the destroying influence of smallpox,—an achievement which surely ought to have been reckoned among the highest and purest

claims to public honours. His adjudicators, however, decreed otherwise: they rejected a name from their college-rolls, which fame has long since placed under the safeguard of immortality.

Jenner, in glancing at these proceedings, observes in his letter to Dr. Cooke, with much point and impressiveness, "At my time of life to set about brushing up my Greek and Latin, would be irksome to me beyond measure. I would not do it for a diadem. That indeed would be a bauble: I would not do it for John Hunter's Museum, and that you will allow is no trifle. How fortunate I have been in receiving your kind communication! If the thing had gone on, it would have been embarrassing to both parties. I wish you would frame a by-law for admitting men among you who would communicate new discoveries for the improvement of the practice of physic. On this score (not alluding to vaccination), I could face your inquisition with some degree of firmness." (Vol. ii. p. 193.)

If for a moment, then, we turn our eyes

from this occurrence, (which cannot be otherwise than deeply mortifying to the genuine lovers and cultivators of science,) toward the most illustrious seat of science in the continent, among whose chief operations and measures it is to associate with its proceedings those European names who have accomplished every thing that thought and knowledge can effect in their scientific pursuits,—how different was its decree to Jenner from that of Warwick Lane! The foreign body,—to be a member of which, and afterwards its president, “the then foremost man in all the world,” reckoned one of his highest glories—we need scarcely tell the reader we are here speaking of the Institute of France and of Napoleon—, was proud to select Jenner from the most distinguished of his scientific countrymen as a corresponding associate; while two years after this rare honour being conferred upon him, the College of Physicians did what those who are not under the influence of bad passions when they sit on judgment, would almost pronounce to be a moral impos-

sibility, refuse to grant him their diploma. Yes, so it actually was. Now, though we are perfectly aware that it would ill accord with the feelings of Dr. Baron, in whom there is so much of the *mitis sapientia Læli*, to roll denunciations and invectives,—to pour forth hot burning lava of indignation upon the lamentable indignity offered here to the author of vaccination; yet we must be permitted to say, that we should not have felt our respect for his character lowered, if he had spoken out his thoughts more fearlessly upon Jenner's being thus artfully put under the ban of disqualification. He might, without any fiery descants upon this subject, in the true spirit of his biographical office, have uttered those pertinent reproofs which would serve as a sort of abiding or effectual antidote against the recurrence of an act, respecting which he who can or cannot rejoice in the display of superior talent, must equally exclaim, "This is a blot which disfigures your college annals!" We are very willing to allow, that some weighty excuses may be alleged, why Dr.

Baron here should not carry with him any offensive armour. But however his judgments might wear, to the jaundiced eye, a hostile aspect against the privileges and dignities of Warwick Lane, they would have found (we will venture to assert) a ready echo from the public heart: for seldom has human nature, to our thinking, appeared in a less amiable form, than in the foregoing decision of the College of Physicians. *Amicus Plato, amicus Socrates, sed magis amica veritas.* We should not, however, have adverted to this invidious topic in the strong and explicit terms which we have used, if it had not lately reached our ears, that, after Jenner had been chosen an associate of the Institute, this ill-conduct of the College had been much commented upon by foreign societies, and particularly by some of the leading members of the Academies of Science and of Medicine at Paris. But, if we are rightly informed, the College is no longer “in a crepuscular state of mind” on this subject. It is not darkness now, or twilight, but sunrise. Under

the auspices of their present learned president, Sir Henry Halford, whom to name is to praise, and other members of his high rank of intellect, and consequent liberality of feeling, the exclusive and disqualifying code has been greatly mitigated. Many important changes have been made in their statutes; several obsolete rules have been got rid of; and, without suffering the slightest infringement upon the exercise of their essential and legitimate powers, they have been strengthened by the removal of abuses. We speak our sincerest sentiments then, when we say that we earnestly hope never again to acquire the right of censuring this venerable and illustrious body.

If the professed object of this article had not been to develope with some degree of minuteness the story of vaccination, we should gladly have transferred to our pages some very pleasing passages concerning Jenner's private character. Nothing indeed could be more warm, tender, and generous than his domestic feelings. He was a true Christian,

sincere in his belief, and most exemplary in his conduct. Devoid of all pride and selfishness, full of ingenuous cordiality, firm in his friendships as in his faith, simple, modest, and engaging in his manners, he lost none of his old attachments, while forming many new ones, when the laurels of science were twined around his brows by every nation of civilized Europe—laurels more imperishable than those placed on the heads of heroes, politicians, and the founders of mighty dynasties. Here then we close the offering of this tribute of gratitude and justice to one whom we have so fixedly placed, in our thoughts, upon the roll of the world's most useful benefactors, as bestowing upon it a blessing, universal as the light that is diffused through the spaces around us, to cheer and animate all climes and all countries; and therefore a blessing greater perhaps than any other that it has ever yet received from any hand but Heaven. Nor need we add, that if, in paying it, one single convert should be made to the cause of vaccination, by the foregoing details, we shall

esteem this paper not to have been written in vain. We conclude then with this final inference impressed upon our minds, that vaccination is, (to use the appropriate and forcible words of its present historian,) “a marvellous work after all; for even those who have watched its progress, who have anticipated and longed for the success that has attended it, cannot, when the accumulated evidence is brought fully to bear upon the lives and happiness of kindreds, and tongues, and nations, avoid wondering at the signal mercies with which, in these days, Providence has crowned the exertions of one of our fellow creatures.”

APPENDIX.

(A.)

At the sixth Anniversary Meeting of the Association, holden on the 18th and 19th of July, Dr. Hastings announced, that he had received upwards of 100 replies to the Queries issued by the Committee on the subject of the smallpox, and he had no doubt that, on the receipt of the whole of the replies, much valuable information would be elicited.

The following is a copy of those Queries :—

*Queries on the subject of Vaccination, Smallpox,
&c.*

1. What is the estimation in which vaccination is held in your town and neighbourhood by the profession and by the public? Do you find their confidence in it much shaken?

2. Do you find any difficulty in inducing parents to have their children vaccinated?

3. Have you found that, upon any alarm of smallpox, a *great number* came forward who had hitherto neglected to submit to the operation? Even several in the same family?

4. Is gratuitous vaccination extensively practised with you? and in what way, by public institutions or privately?

5. Is vaccination performed in your neighbourhood by non-professional persons, and who are they?

6. Have you had many cases of smallpox in your neighbourhood, of late years?

7. Can you say how many cases of smallpox occurred in your neighbourhood during the last year? How many under your own observation?

8. Have you seen many cases of smallpox after vaccination? How many during the last year?

9. Do you find these cases more frequent now than fifteen years ago? and if so, to what do you attribute the increase?

10. Is smallpox inoculation ever practised in your town or neighbourhood; either after vaccination, as a test of its value, or without vaccination?

11. Is it ever performed by non-professional gentlemen?

12. Among what class of persons is it performed?

13. Can you give any correct idea of the numbers that are annually inoculated with smallpox, and particularly during the last year?

14. Have you seen cases in which smallpox has occurred a second or a third time?

15. How many cases of death from smallpox have occurred in your neighbourhood during the last year? how many of these after vaccination, and how many from a second or third attack of smallpox?

16. Were the number of cases of smallpox after vaccination more frequent in those who had been vaccinated several years before, than in those who had been recently vaccinated?

17. Did you ever vaccinate with matter taken direct from the cow? and if so, did you observe any difference in the effect produced in such cases from that which arises from vaccine matter which has passed through a great number of human beings?

18. Have you any reason to believe that the particular constitution or state of health of the individual vaccinated, has anything to do with rendering the protection from vaccination more or less efficacious than under ordinary circumstances?

(B.)

It is no mean proof of the increasing celebrity of this Association, abroad as well as at home, that several distinguished men among our foreign scientific bodies have caused their names to be enrolled in it. We here enumerate a few of them.

Russia, F. C. Markus, M.D., Chief Physician to the Galitzin Hospital, Moscow; Counsellor of State; Knight of the Order of St. Anne and St. Wolmir. George Lefevre, M.D., Physician to the British embassy, St. Petersburg.

Sweden and Norway, D. Holst, M.D.; Professor of Medicine in the Royal Frederick's University, Christiana.

Denmark, C. Otto, M.D., Professor of Pharmacology and Forensic Medicine in the University of Copenhagen.

Austria, Burkard Eble, M.D., Military Surgeon, Librarian of the Josephine Academy, Vienna.

Holland, J. L. Schroeder Van der Kolt, M.D., Professor of Anatomy and Physiology in the University of Utrecht.

France, E. C. A. Louis, Physician to La Pitie, &c., Paris.

Italy (North), Carlo Francisco Bellingeri, M.D., President of the Medical Faculty in the University of Turin, &c. (South), Maurizio Bufalini, M.D.,

Professor of Clinical Medicine, at the Hospital Santa Maria, Florence.

Portugal, Antonia Jose de Luna Leitaó, M.D., Physician to the Hospital San Lazaro, at Lisbon.

United States of America (North), John C. Warren, M.D., Professor of Anatomy and Surgery.

Harward University, Boston (South), Robley Dungleson, M.D., Professor of Materia Medica, &c. Jefferson College, Philadelphia.

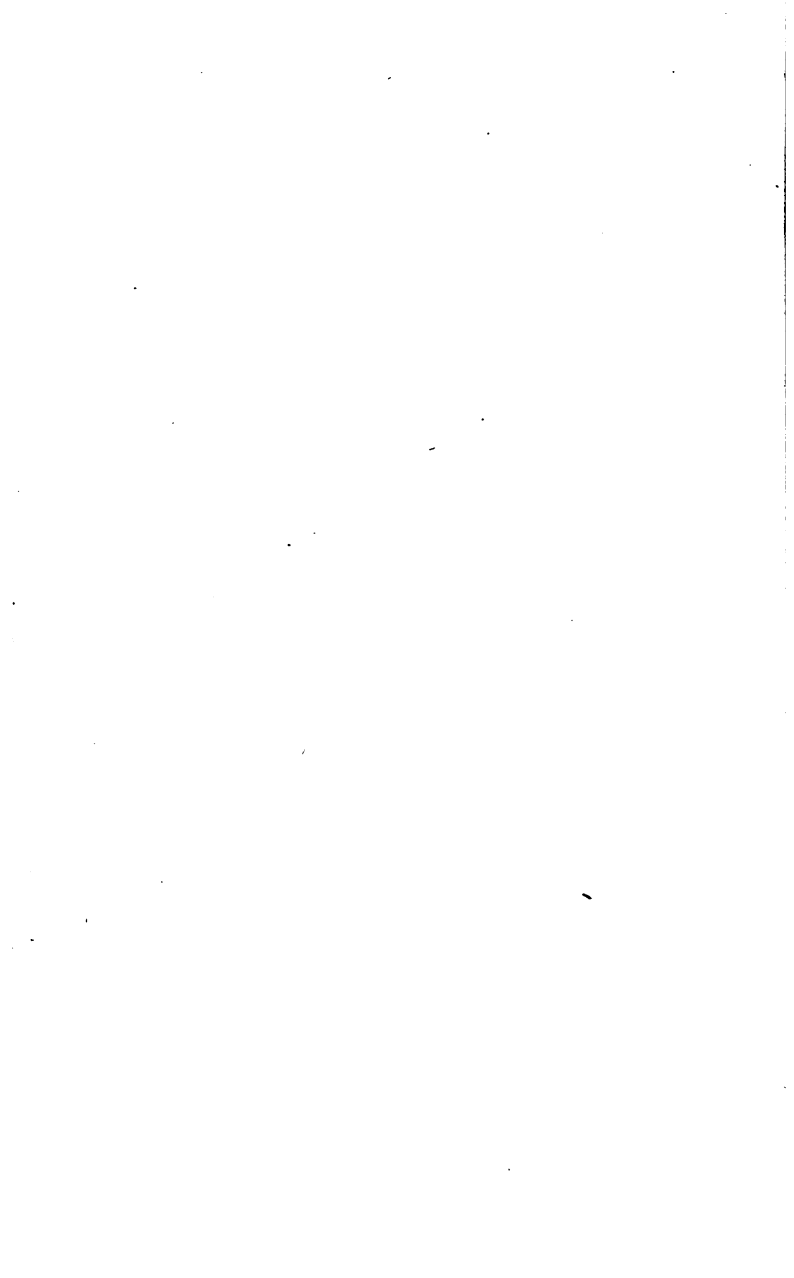
East Indies, W. B. O'Shaughnessy, M.D., Professor of the Institutes of Medicine in the Medical College, Calcutta.

Brazils, Luis Vicente De Simoni, M.D., Secretary of the Imperial Academy of Medicine of Rio Janeiro.

Mexico, Guillenio Scheide, M.D., Secretary of the Academy of Medicine, Mexico.

Australia, E. C. Hobson, M.D., Naturalist to the colony of Van Diemen's Land, Hobart Town.

LONDON :
PRINTED BY GILBERT AND RIVINGTON,
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